Pills on the World Wide Web: reducing barriers through technology

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Electronic communication has altered the fabric of our lives, allowing us to instantly connect for social and business ventures. For the first time in 2014, mobile devices surpassed desktop computers as the leading digital platform in the United States. The primary reason leading to this change is mobile application (app) usage, which alone makes up 52% of total digital media engagement.[1] While our patients, especially young women, are intense users of mobile devices and technology,[2] health care is lagging in use of service delivery by these modes relative to consumer goods. Patient portals are one area of recent advancement, allowing for visit scheduling, as well as advice and refills, yet concerns about data privacy and patient understanding have slowed adoption of this technology.[3] In addition, telemedicine programs are an expanding resource in both research and clinical practice to remove access barriers for health care services, especially for rural care.[4]

Young women are both users of mobile devices and oral contraception. In light of these advancements, harnessing the power of electronic communication and the Internet creates infinite opportunities within health care, including the potential to improve access to family planning needs. While there are a large number of World Wide Web sites and apps that provide contraceptive information, this article will focus solely on the issue of accessing oral contraceptives via ecommerce. Persistent efforts to improve access to safe oral contraceptives have made little progress outside the realm of emergency contraception.[5] The emergency contraception saga has been a long and complicated trial involving partisan politics. In efforts to expand access to emergency contraception prior to over-the-counter (OTC) availability, The Emergency Contraceptive Website was developed.[6] This World Wide Web–based provision enables emergency contraception users to overcome the obstacle of inconvenient office hours, one of the main structural barriers to emergency contraception access.[4] In the subsequent years, OTC availability of emergency contraception became a reality (with limitations), yet evidence of improved access is difficult to assess and removing this important barrier has not lowered costs.[7]

Oral contraceptive pills (OCP) are another safe family planning option that is fraught with a history of access barriers.[8] Physician visits have been required for refills or new prescriptions, provision has been tied to other required screening (pelvic examinations, cervical cancer or sexually transmitted infection [STI] screening), insurance coverage has limited access to providers or prescription payments, and pharmacy availability has varied. OCPs have a substantial safety profile[9] and potential users have proven the ability to self-screen for medical contraindications to use.[10,11] A survey of US women indicated that two-thirds (62%) were in favor of OCPs being available OTC and 59% of current OCP users would likely use OTC OCPs.[12] The American College of Obstetricians and Gynecologists, as well as other professional organizations, published statements calling for increased accessibility of OCP through OTC availability.[13,14] Research has shown interest and acceptability of OTC provision of oral contraceptives by US women,[12] as well as the potential for safe, behind-the-counter pharmacist provision.[15] Unfortunately, these initiatives remain within research protocols and hormonal contraception still mandates a prescription, despite OTC delivery in over 100 other countries.[16] The persistent public health issue of unintended pregnancy in this country could be directly impacted by these measures to decrease patient burden for contraceptive obtainment.

While the barriers to OTC oral contraceptives are many, electronic mobile apps and the Internet offer the ability to link a need to reality. This ability is not entirely new as online access to oral contraceptives from overseas suppliers was reported in the medical literature 15 years ago with widely variable pricing.[17] However, many of the World Wide Web sites listed in that article had been shut down prior to publication in 2001, and none are functioning today. Since that time, reports have expressed concern about online pharmacies providing contraceptives without screening for conditions that could cause harm for users.[18,19] Several options are now available to deliver oral contraceptives to women who order them through an app or the Internet. These new sources are US based, provide medical screening by licensed US physicians, and are affordable. We will discuss 3 of these that are currently available, and there are certainly more that will come.

The first new example is the PolkaDoc Birth Control Clinic, which offers a direct-to-consumer contraceptive prescription through an app currently available to women aged ≥18 years in California.[20] This service requires a user to download a free app, which is used to screen her medical

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history and report her blood pressure. Users may select a pill they prefer from over 100 different pill brands or be guided by the app to help choose between a combined or progestin-only pill. A 3-month prescription is sent to the pharmacy of her choice. Women can use their insurance coverage for their prescription or pay cash if they lack coverage. Women can send and receive messages through the app with the PolkaDoc providers, while real-time consultations are available as needed. Physicians providing the service must be licensed in the recipient's state. There is potential to grow beyond the state of California, as well as expand to provision of the vaginal ring and emergency contraception. While the app does not remove all barriers, it does impact the structural barrier of a clinic visit that has been a previously reported benefit.[4] Pharmacy access and drug availability might vary, but the $10 eVisit fee avoids the visit co-pay and saves travel time to the office. There is no charge if a prescription is not provided, and the app makes it easy for a patient to send a record of her virtual visit to her other care providers.

A telemedicine model for both contraceptive provision and eventual STI screening was developed by Planned Parenthood for both online and app use.[21] Currently available in Washington and Minnesota, the Planned Parenthood Care project allows for a video visit with a health practitioner during hours that vary by state. The visit cost of $45 is covered by some insurance plans. Pills, patches, or vaginal rings will be mailed to the woman's home, bypassing the pharmacy. These services will eventually expand to home STI screening via a mail-in kit, with treatment mailed to the patient for positive chlamydia testing and in-clinic scheduling for gonorrhea treatment or any other symptoms. Planned Parenthood has the wide-scale clinic infrastructure to support nationwide, 24-hour/7-day-a-week expansion of these services, pushing back at political interference and insurance barriers to telemedicine services.

Appealing to US women's desire to aid women in developing countries, Afaxys Pharmaceuticals has teamed with the online platform, PRJKT RUBY, to launch an initiative called Take1Give1.[22] Through this program, US women will be able to obtain affordable contraception online after completing a medical history. US-based physicians approve the prescription and select an appropriate brand of oral contraceptives. Online chatting with providers is available. In 2015, each purchase of 1 month's supply of oral contraceptives by a woman in the United States will result in a 25-cent contribution to Population Services International, a nonprofit global health organization. Population Services International will use the funds to support their work providing oral or injectable contraceptives, implants, intrauterine devices, or emergency contraception to women in developing countries. A month of oral contraception at PRJKT RUBY costs just $20 and no health insurance is needed. Up to 3 months' supply can be delivered to the recipient's door.

As companies develop direct-to-consumer models, consumer preference will speak loudly and leaders in our current health care delivery system must decide whether to lead or follow. Use of an app for a contraceptive prescription or STI screening is only the beginning of potential uses for streamlined, question-based treatments and diagnostics in women's health. Certainly treatment of simple urinary tract and yeast infections are predictable next steps for this type of service delivery.

Women already utilize World Wide Web resources for contraceptive information. The World Wide Web site, bedsider.org, is an online contraceptive support network operated by the National Campaign to Prevent Teen and Unplanned Pregnancy.[23] In addition to the evidence-based information on contraceptive methods, the site provides some assistance on "where to get it" once a user selects a method. Linking the World Wide Web—based contraceptive provision services to this site would allow for reliable decision-support information and immediate access to OCPs, all within the privacy of the woman's home.

Increasing access to oral contraceptives should be widely supported by women's health care professionals, as it would remove contraceptive barriers for individual women and is a sensible public health measure. The question of whether this measure will decrease unintended pregnancy rates at a population level has not been answered, given the high typical use failure rates of pills.[5] Women's health providers need to think outside the box and take cues from the consumer goods segment, allowing women to utilize new health care models and remove access barriers through the use of technology. ■

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